

AMENDMENT UNDER 37 C.F.R. § 1.111  
U.S. Application No. 09/944,179  
Attorney Docket No. Q66100

**AMENDMENTS TO THE CLAIMS**

**This listing of claims will replace all prior versions and listings of claims in the application:**

**LISTING OF CLAIMS:**

1. (original): An information transmitting system in which a plurality of information processing apparatuses are interconnected with each other via a transmitting device capable of transmitting information in accordance with a first transmission mode for transmitting information so as to be synchronous to other information or a second transmission mode for transmitting information so as to be asynchronous to other information, said second transmission mode for transmitting said information at a higher speed than that of transmission in accordance with said first transmission mode, wherein said each information processing apparatus comprising:

a first exchange device for mutually exchanging encryption processing information, being employed for encrypting said information, between the information processing apparatuses via said transmitting device in said first transmission mode; and

a second exchange device for mutually exchanging encrypted information between said information processing apparatuses

via said transmitting device in said second transmission mode.

2. (original): An information transmitting method in a information transmission system in which a plurality of information processing apparatuses are interconnected with each

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other via a transmitting device capable of transmitting information in accordance with a first transmission mode for transmitting information so as to be synchronous to other information or a second transmission mode for transmitting information so as to be asynchronous to other information, said second transmission mode for transmitting said information at a higher speed than that of transmission in accordance with said first transmission mode, the method comprising the processes of:

mutually exchanging encryption processing information, being employed for encrypting said information, between the information processing apparatuses via said transmitting device in said first transmission mode; and

mutually exchanging encrypted information between said information processing apparatuses via said transmitting device in said second transmission mode.

3. (original): An information sending apparatus for sending information to an information receiving apparatus via a transmitting device capable of transmitting said information in accordance with a first transmission mode for transmitting information so as to be synchronous to other information or a second transmission mode for transmitting information so as to be asynchronous to other information, said second transmission mode for transmitting said information at a higher speed than that of transmission in accordance with said first transmission mode, said information sending apparatus comprising:

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a first encrypting device for employing encryption processing information for encrypting said information, thereby encrypting specific information to be sent to said information receiving apparatus;

a first sending device for sending said encrypted specific information to said information receiving apparatus via said transmitting device in accordance with said second transmission mode;

a second encrypting device for encrypting said encryption processing information itself; and

a second sending device for sending said encrypted encryption processing information to said information receiving apparatus via said transmitting device in accordance with said first transmission mode.

4. (original): The information sending apparatus according to claim 3, wherein said specific information is AV (Audio/Visual) information, and said encryption processing information is an encryption key and an encryption table for encrypting the AV information.

5. (original): The information sending apparatus according to claim 3, wherein said transmitting device transmits said encrypted specific information and said encrypted encryption processing information in conformity to IEEE (Institute of Electrical and Electronic Engineers) 1394 Standard, and

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said first transmission mode is an isochronous transmission mode in the IEEE 1394 Standard and said second transmission mode is an asynchronous transmission mode in the IEEE 1394 Standard.

6. (original): An information sending method of sending information to an information receiving apparatus via a transmitting device capable of transmitting said information in accordance with a first transmission mode for transmitting information so as to be synchronous to other information or a second transmission mode for transmitting information so as to be asynchronous to other information, said second transmission mode for transmitting said information at a higher speed than that of transmission in accordance with said first transmission mode, said information sending method comprising the processes of:

employing encryption processing information for encrypting said information, thereby encrypting specific information to be sent to said information receiving apparatus;

sending said encrypted specific information to said information receiving apparatus via said transmitting device in accordance with said second transmission mode;

encrypting said encryption processing information itself; and

sending said encrypted encryption processing information to said information receiving apparatus via said transmitting device in accordance with said first transmission mode.

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7. (original): An information receiving apparatus for receiving said encrypted specific information sent from said information sending apparatus according to claim 3, said information receiving apparatus comprising:

    a first acquisition device for acquiring said encrypted specific information from said transmitting device;

    a second acquisition device for acquiring said encrypted encryption processing information from said transmitting device;

    a first decrypting device for decrypting said encrypted encryption processing information; and

    a second decrypting device for decrypting said encrypted specific information employing said decrypted encryption processing information.

8. (original): The information receiving apparatus according to claim 7, further comprising a recording device for recording said decrypted specific information in a recording medium.

9. (original): An information receiving method in the information receiving apparatus for receiving said encrypted specific information sent from said information sending apparatus according to claim 3, said information receiving method comprising the processes of: acquiring said encrypted specific information from said transmitting device;

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acquiring said encrypted encryption processing information from said transmitting device;

decrypting said encrypted encryption processing information; and

decrypting said encrypted specific information employing said decrypted encryption processing information.

10. (original): An information transmitting system comprising: a transmitting device capable of transmitting information in accordance with a first transmission mode for transmitting information so as to be synchronous to other information or a second transmission mode for transmitting so as to be asynchronous to other information, said transmitting mode for transmitting said information at a higher speed than that of transmission in accordance with said first transmission mode; an information sending apparatus for sending said information via the transmitting device; and an information receiving apparatus for receiving said sent information via said transmitting device, wherein

(i) said information sending apparatus comprises:

a first encrypting device for employing encryption processing information for encrypting said information, thereby encrypting specific information to be sent to said information receiving apparatus;

a first sending device for sending said encrypted specific information to said information receiving apparatus via said transmitting device in accordance with said second transmission mode;

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a second encrypting device for encrypting said encryption processing information itself;  
and

a second sending device for sending said encrypted encryption processing information to  
said information receiving apparatus via said transmitting device in accordance with said first  
transmission mode,

(ii) said information receiving apparatus comprises:

a first acquisition device for acquiring said encrypted specific information from said  
transmitting device;

a second acquisition device for acquiring said encrypted encryption processing  
information from said transmitting device;

a first decrypting device for decrypting said encrypted encryption processing information;  
and

a second decrypting device for decrypting said encrypted specific information by  
employing said decrypted encryption processing information.

11. (original): An information recording medium having a sending control program  
recorded to be readable by a sending computer in an information sending apparatus for sending  
information to an information receiving apparatus via a transmitting device capable of  
transmitting said information in accordance with a first transmission mode for transmitting  
information so as to be synchronous to other information or a second transmission mode for  
transmitting information so as to be asynchronous to other information, the second transmission

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mode for transmitting said information at a higher speed than that of transmission in accordance with said first transmission mode, said sending control program causing said sending computer to function as:

    a first encrypting device for employing encryption processing information for encrypting said information, thereby encrypting specific information to be transmitted to said information receiving apparatus;

    a first sending device for sending said encrypted specific information to said information receiving apparatus via said transmitting device in accordance with said second transmission mode;

    a second encrypting device for encrypting said encryption processing information itself; and

    a second sending device for sending said encrypted encryption processing information to said information receiving apparatus via said transmitting device in accordance with said first transmission mode.

12. (original): An information recording medium having a receiving control program recorded to be readable by a receiving computer in an information receiving apparatus for receiving encrypted information transmitted from an information sending apparatus for sending information to said information receiving apparatus via a transmitting device capable of transmitting said information in accordance with a first transmission mode for transmitting information so as to be synchronous to other information or a second transmission

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mode for transmitting information so as to be asynchronous to other information, the second transmission mode for transmitting said information at a higher speed than that of transmission in accordance with said first transmission mode, said receiving control program causing said receiving computer to function as:

    a first acquisition device for acquiring encrypted specific information from said information sending apparatus;

    a second acquisition device for acquiring said encrypted encryption processing information from said information sending apparatus;

    a first decrypting device for decrypting said encrypted encryption processing information; and

    a second decrypting device for decrypting said encrypted specific information employing said decrypted encryption processing information.

13. (original): A computer data signal embodied in a carrier wave and representing a sequence of instructions executed by a computer

    in an information sending apparatus for sending information to an information receiving apparatus via a transmitting device capable of transmitting said information in accordance with a first transmission mode for transmitting information so as to be synchronous to other information or a second transmission mode for transmitting information so as to be asynchronous to other information, the second transmission mode for transmitting said information at a higher speed

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than that of transmission in accordance with said first transmission mode, said sequence of instructions comprising the steps of:

employing encryption processing information for encrypting said information, thereby encrypting specific information to be transmitted to said information receiving apparatus;

sending said encrypted specific information to said information receiving apparatus via said transmitting device in accordance with said second transmission mode;

encrypting said encryption processing information itself; and

sending said encrypted encryption processing information to said information receiving apparatus via said transmitting device in accordance with said first transmission mode.

14. (original): A computer data signal embodied in a carrier wave and representing a sequence of instructions executed by a computer

in an information receiving apparatus for receiving encrypted information transmitted from an information sending apparatus

for sending information to said information receiving apparatus via a transmitting device capable of transmitting said information in accordance with a first transmission mode for transmitting information so as to be synchronous to other information or a second transmission mode for transmitting information so as to be asynchronous to other information, the second transmission mode for transmitting said information at a higher speed than that of transmission in accordance with said first transmission mode, said sequence of instructions comprising the steps of:

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acquiring encrypted specific information from said transmitting device;

acquiring said encrypted encryption processing information from said transmitting device;

decrypting said encrypted encryption processing information; and

decrypting said encrypted specific information employing said decrypted encryption processing information.

15. (new): An information transmitting system comprising a plurality of information processing apparatuses capable of selecting either synchronous transmission mode or asynchronous transmission mode within one transmission cycle as one transmission unit and capable of transmitting/receiving information in the selected mode, characterized in that said information processing apparatus for transmitting said information comprises:

a first encrypting device which encrypts information in a first encryption mode in the basis of encryption processing information for encrypting said information and generates a first data packet for transmitting the encrypted information in said asynchronous transmission mode;

a second encrypting device which encrypts said encryption processing information in a second encryption mode and generates a second data packet for transmitting the encrypted encryption processing information in said synchronous transmission mode;

a generating device which generates said one transmission cycle as one transmission unit from said first data packet generated by said first encrypting device and said second data packet generated by said second encrypting device; and

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a transmitting device which transmits the generated one transmission cycle as one transmission unit;

    said information processing apparatus for receiving said information comprises:

        a receiving device which receives said one transmission unit of cycle;

        an acquisition device which acquires said first data packet and said second data packet from the received one transmission cycle as one transmission unit;

        a first decrypting device which acquires said encrypted encryption processing information from said second data packet and decrypts said encrypted encryption processing information in a first decryption mode; and

        a second decrypting device which acquires said encrypted information from said first data packet and decrypts said encrypted specific information in a second decryption mode.

16. (new): An information transmitting/receiving method in an information transmitting system comprising a plurality of information processing apparatuses capable of selecting either synchronous transmission mode or asynchronous transmission mode within one transmission cycle as one transmission unit and capable of transmitting/receiving information in the selected mode, characterized in that

    said method comprises:

        a first encrypting step of encrypting information in a first encryption mode in the basis of encryption processing information for encrypting said information;

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a first generating step of generating a first data packet for transmitting the encrypted information in said asynchronous transmission mode;

a second encrypting step of encrypting said encryption processing information in a second encryption mode;

a second generating step of generating a second data packet for transmitting the encrypted encryption processing information in said synchronous transmission mode;

a third generating step of generating said one transmission cycle as one transmission unit from said first data packet generated by said first encrypting step and said second data packet generated by said second encrypting step;

a transmitting step of transmitting the generated one transmission cycle as one transmission unit;

a receiving step of receiving said one transmission unit of cycle;

an acquisition step of acquiring said first data packet and said second data packet from the received one transmission cycle as one transmission unit;

a first acquiring step of acquiring said encrypted encryption processing information from said second data packet;

a first decrypting step of decrypting said encrypted encryption processing information in a first decryption mode;

a second acquiring step of acquiring said encrypted information from said first data packet; and

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a second decrypting step of decrypting said encrypted specific information in a second decryption mode.